

Series 2200/Series 2600 — Psibar's More Accurate and Versatile Cousins

- ▶ $\pm 0.2\%$ Span/Year Typical Long-Term Drift
- ▶ 0.25% Typical Static Error Band
- ▶ 1.5% Typical Thermal Error Band

When your application demands even higher accuracy, step up to our best. GEMS' top-of-the-line Series 2200 and Series 2600 pressure transducers achieve a high degree of accuracy and long-term repeatability for the most demanding environments. These state-of-the-art transducers combine a programmable ASIC (Application Specific Integrated Circuit) chip with a CVD (Chemical Vapor Deposition) sensing element. The result is a versatile sensor with high-performance characteristics, and with an operating life span in excess of 100 million full pressure reversals.

Specifications

Input	
Pressure Range	Up to 400 bar (6000 psi)
Pressure Limit	2 times rated pressure up to 250 bar; 400 bar 1.5 times rated pressure.
Burst Pressure	>10 times rated pressure
Fatigue Life	100 million full pressure reversals
Performance	
Typical static error band	$\pm 0.25\%$ span
Typical thermal error band	1.5% (-20°C to +80°C)
Typical long term drift	$< \pm 0.2\%$ span over 1 year
Operable Temperature Range	
	-40°C to +120°C (-40°F to +250°F) IP65 cable -20°C to +80°C (-4°F to +176°F) waterproof cable -20°C to +50°C (-4°F to +122°F)
Environmental	
Acceleration tolerance	For 100g steady acceleration in any direction maximum 0.0362%/span/g for 0.75 bar/11 psi range decreasing logarithmically with pressure range to 0.00069% span/g for 400 bar/6000 psi range.
Vibration tolerance	35g peak sinusoidal, 5Hz to 2kHz. 12.5mm double amplitude not greater than 0.5%/span/g peak.
Mechanical shock	Withstands free fall test to BS2011: Part 1.2Ed (IEC 68-2-32, Procedure 1, severity 1000mm, two free falls in each of 3 mutually perpendicular orientations) without damage.
Enclosure protection	NEMA 4; IP65 to BS5490 (IEC 529)
Excitation Voltage	
Millivolt output	10 VDC @ 4 mA, operable 2-15 VDC
Voltage output	Min. 1.5 volts above max. span, max. 35 VDC
Current output	7-35 VDC
Pressure Connection	G 1/8 Internal Thread to BS2779 Compatible with ISO 228. A Variety of Welded Adaptors Are Available.
Wetted Parts	17-4 PH Stainless Steel



Series 2200



Series 2600

Electromagnetic Capability



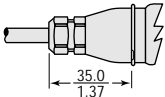
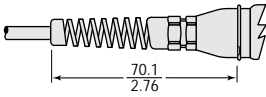
Meets the requirement for CE marking of EN50081-2 for emissions and EN50082-2 for susceptibility.

Test Data:

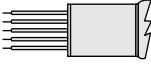

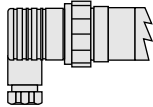
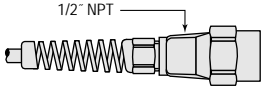
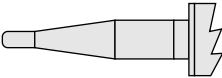
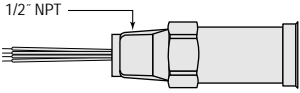
- EN61000-4-2 Electrostatic Discharge. 8kV air discharge, 4kV contact discharge. Unit survived.
- ENV50140 Radiated RF Susceptibility. 10V/m, 80MHz-1GHz, 1kHz mod. Maximum recorded output error was $< \pm 1\%$
- ENV50204 Radiated RF Susceptibility to Mobile Telephones. 10V/m, 900MHz. Maximum recorded output error was $< \pm 1\%$.
- EN61000-4-4 Fast Burst Transient. 2kV, 5/50ns, 5kHz for 1 minute. Unit survived.
- ENV50141 Conducted RF Susceptibility. 10Vms, 1kHz mod, 150kHz - 80MHz. Maximum recorded output error was $< \pm 1\%$



Dimensions


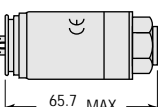
2200 Series

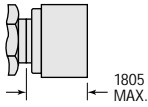
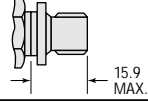
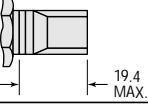
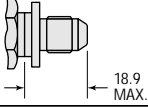
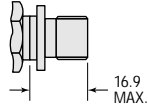
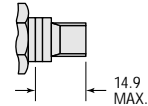
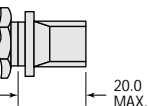

Mini 4 Pin – No Connector	
Mini 4 Pin – With Connector	
IP67 Cable (Waterproof)	
IP64 or NEMA4 Cable	


2600 Series

Flying Leads – Immersible	
10-6 or 8-4 Mil-C Connector	
Large DIN 43650 Plug	
Conduit Connector with Cable	
Molded, Immersible Cable	
Conduit Connector with Flying Leads	

mV Gauge and Absolute Amplified Gauge	
Amplified Absolute	

mV Gauge and Absolute Amplified Gauge	
Amplified Absolute	

G 1/4 Internal	
G 1/4 External	
1/4 - 1/8 NPT	
7/16-20 UNF-2A	
G 1/4 Soft Seal	
1/8-27 NPT	
R 1/4	
G 1/8 Internal	

Nose Cone – Black Acetal	
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Turn to next page for ordering information

How To Order

Use the **Bold** characters from the chart below to construct a product code.

2200 B A H50 02 2 H E A

Series **2200** **2600**

Output

A – 100 mV	G – 0.2-10.2V	J – 0.5-5.5V
B – 4-20mA	F – 0.1-5.1V	R – 0-5V
C – 1-6V	H – 1-5V	S – 0-10V
D – 1-11V		

Pressure Datum
A – Absolute **G – Gauge**

Pressure Range – psi

F15 – 0-15	G60 – 0-600	Vac – -15 psi
F30 – 0-30	H10 – 0-1,000	1F5 – Vac-0
F60 – 0-60	H15 – 0-1,500	3F0 – Vac-15
G10 – 0-100	H20 – 0-2,000	6F0 – Vac-45
G15 – 0-150	H30 – 0-3,000	1G0 – Vac-85
G20 – 0-200	H40 – 0-4,000	1G5 – Vac-135
G30 – 0-300	H50 – 0-5,000	2G0 – Vac-185
G50 – 0-500	H60 – 0-6,000	3G0 – Vac-285

Pressure Range – bar

N75 – 0-750 mbar	B25 – 0-25	Vac – -1 bar
A10 – 0-1	B40 – 0-40	1A0 – Vac-0
A16 – 0-1,6	B60 – 0-60	1A6 – Vac-0,6
A25 – 0-2,5	C10 – 0-100	2A5 – Vac-1,5
A40 – 0-4	C16 – 0-160	4A0 – Vac-3
A60 – 0-6	C25 – 0-250	6A0 – Vac-5
B10 – 0-10	C40 – 0-400	1B0 – Vac-9
B16 – 0-16		1B6 – Vac-15
		2B5 – Vac-24
		4B0 – Vac-39

Pressure Connection

01 – G1/4 External	09 – G1/8 Internal
02 – 1/4-18 NPT External	00 – G1/4 Internal
04 – 7/16-20UNF To SAE J514	0A – R1/4 External
05 – G1/4 Ext. Soft Seal	19 – Nose Cone (2600 Only)
08 – 1/8-27 NPT External	

Electrical Connection

2200 Series:	2600 Series:
A – 4 PIN DIN (Micro) Mating Connector Supplied	C – Fixed Plug Size 10-6 Mating Plug Not Supplied
B – 4 PIN DIN (Micro) Mating Connector Not Supplied	G – Fixed Plug To DIN 43650 Mating Plug Supplied
2 – Cable Nema 4 USA	M – Molded Cable Immersible Max. Cable Length 150 Metres (See Note 1)
D – Cable Weatherproof IP66 Europe	P – Molded Cable Immersible Cable Length Above 150 Metres
F – Cable Gland Metal IP67	1 – Fixed Plug Size 8-4 Mating Plug Not Supplied
	3 – Conduit Connector 1/2NPT Ext. 1M Cable (See Note 2)

Performance Code

Cable Length

- U – No Cable Fitted (See Notes 1 and 2)
- D – 1 Metre (3 Feet)
- E – 3 Metres (9 Feet)
- F – 5 Metres (16 Feet)
- G – 10 Metres (32 Feet)

Apparatus Protection

- 2 – mV Only Transient Protection CE Mark
- 3 – Amplified Only RFI Protected CE Mark
- H – 500V AC Isolated (Non CE) (None IS)

Notes:

- Where electrical connection -M is specified, customer must select cable length from Table 1.
- Where electrical connection -3 and cable length -U occur in part number, the unit will be supplied with flying leads.
- Additional Pressure Ranges are available. Please consult factory.

Table 1 – Cable Kits

(Applies to 2600 Series)

Code	Length (M)	Code	Length (M)	Code	Length (M)	Code	Length (M)
U	No Cable Fitted	F	5	K	25	P	75
C	0.5	G	10	L	30	0	100
D	1	H	15	M	40	R	125
E	3	J	20	N	50	S	150

Electrical Connection P Only	
Code	Length (M)
4	170
5	200
6	225